

# ICP

## IDAHO CLEANUP PROJECT

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Tech Exchange\_10-10-07



**SAFELY PLAN • MOTIVATE • DELIVER**

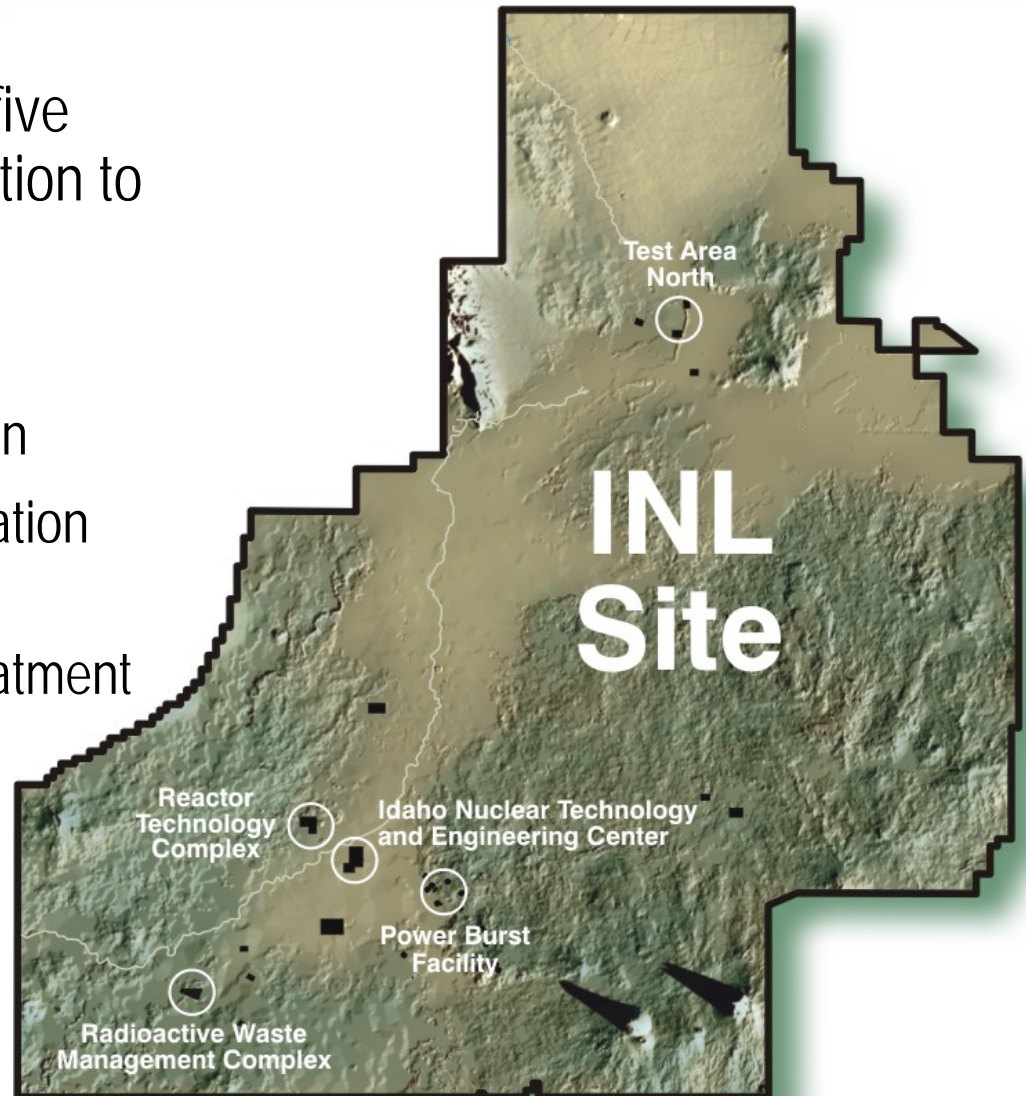
# Safety – A prerequisite for performance

## CWI-Light Zone #2 Handrails

Click screen to play

# Idaho Cleanup Project

- ◆ Cleanup centered around five major project areas in addition to miscellaneous sites
- ◆ Scope includes
  - Nuclear material disposition
  - Spent nuclear fuel stabilization and storage
  - Sodium-bearing waste treatment and disposition
  - Waste management
  - Environmental restoration



# Nuclear Material Disposition

## Scope

- ◆ Dispose of all legacy, EM-owned, unirradiated special nuclear materials by September 30, 2009



Disposition nuclear material items

652 items

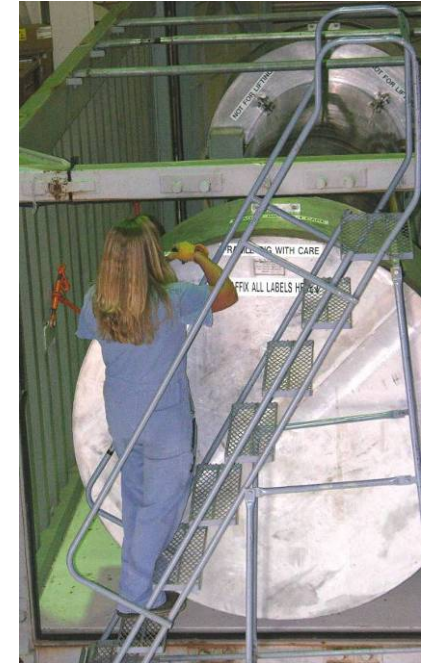
430 items



# Spent Nuclear Fuel

## Scope

- ◆ Transfer legacy, EM-owned spent nuclear fuel (SNF) from wet storage in the CPP-666 storage pool to appropriate dry storage by September 2009
- ◆ Receive and store SNF from the Advanced Test Reactor
- ◆ Provide safe, regulatory-compliant, routine operations for INTEC SNF handling and storage facilities until transition to another entity
- ◆ Fort St. Vrain
  - Perform surveillance and maintenance of facility
  - Provide security force for security of spent nuclear fuel at facility
- ◆ Return all navy-owned fuel to Naval Reactors Facility for long-term dry storage



Transfer SNF from wet to dry

1,545 units

3,278 units

# Sodium-bearing waste

## Scope

- ◆ Design Integrated Waste Treatment Unit (IWTU) ✓
- ◆ Construct IWTU (started nuclear concrete)
- ◆ Process sodium-bearing waste
- ◆ Ship to Waste Isolation Pilot Plant (WIPP)



# Tank Farm Closure

## Scope

- ◆ Progressively close tanks in tank farm (including those storing sodium bearing waste) by grouting
- ◆ Provide remedy indicated by record of decision for tank farm

## Accomplishments

- ◆ Obtained 3116 Waste Determination
- ◆ Approved by Nuclear Regulatory Commission
- ◆ Grouted all available tanks



Close liquid waste tanks (grouting)

15 tanks

11 tanks

# Tank Farm Grouting





# Waste Management Services



## Scope

- ◆ Transuranic waste
  - Retrieve remote-handled (RH) and contact-handled (CH) transuranic waste
  - Characterize RH and CH transuranic waste
  - Ship transuranic waste to the Waste Isolation Pilot Plant (WIPP)
- ◆ Low-level and low-level mixed waste
  - Provide waste management, packaging, and transportation services to Idaho National Lab and Idaho Cleanup Project
  - Dispose of low-level waste at the RWMC (until 2008)
  - Provide offsite disposal of low-level and mixed low-level waste
  - Operate the Idaho CERCLA Disposal Facility (ICDF)
  - Repack, treat, and/or dispose of the backlog mixed low-level waste

## Accomplishments

- ◆ Shipped first-ever remote-handled transuranic waste to the Waste Isolation Pilot Plant (ramped up to six shipments per week)
- ◆ Shipped 65 shipments to date
- ◆ Disposed of 19,143 m<sup>3</sup> of low-level and mixed low-level waste



# Environmental Restoration

## Scope

- ◆ Retrieve targeted waste from approximately 2.8 acres of the Subsurface Disposal Area
- ◆ Remediate 118 contaminated environmental sites
- ◆ Close 68 hazardous waste tank systems
- ◆ Close 550 unnecessary monitoring wells
- ◆ Conduct sitewide groundwater monitoring



## Accomplishments

- ◆ Retrieved 9,377 cubic yards of targeted waste from the Subsurface Disposal Area
- ◆ Remediated 66 contaminated sites
- ◆ Closed 53 hazardous waste tank systems
- ◆ Closed 200 wells

## Scope

- ◆ Demolish or otherwise disposition facilities and structures
  - 73 industrial
  - 22 radiological (moderately contaminated)
  - 25 nuclear facilities (reactor vessels, spent nuclear fuel basins, fuel reprocessing and handling facilities)
  - 115 other structures

## Accomplishments

- ◆ 10 industrial
- ◆ 9 radiological
- ◆ 2 nuclear including Loss of Fluid Test reactor
- ◆ 55 other
- ◆ Near completion of Engineering Test Reactor and Test Area North

ETR  
Bioshield Detonation  
North side Detonation  
June 22, 2007  
Camera Angle:  
Northeast Corner

Click screen to play



- ◆ ICP is on schedule and on budget
- ◆ ICP performance in
  - Safety
  - Risk reduction/protection of the Snake River Plain Aquifer
  - Delivering what we promised (and more)
  - Partnering with stakeholders from special interest groups to regulators
  - Corporate citizenship

will enable our success and support INL's goal for nuclear energy leadership